WO 2005/063055 PCT/IN2003/000433

We claim

5

10

15

20

30

1. An improved process for the preparation of bael fruit powder, said process comprising the steps of:

- (a) extracting Bael fruit pulp,
- (b) mixing the pulp with water in the ratio of about 1:3 proportion,
- (c) filtering the diluted pulp obtained from step (b),
- (d) mixing the filtered pulp of step (c) with anti-caking agent, MgCO₃ is in the range of about of about 0.5 to 3.0g/kg of *Bael* fruit diluted pulp and water to get a final concentration of 12 °brix,
- (e) homogenising the mixture obtained from step (d) at pressure in the range of about 2000-7000 psi,
- (f) drying the homogenised juice using spray dried at a controlled inlet temperature in the range of about 120-180°C and outlet temperature of about 70-100°C,
- (g) collecting the dry *Bael* fruit powder at dehumidified conditions having a temperature in the range of about 20-30°C and relative humidity in the range of about 10-15%.
- 2. A process as claimed in claim 1, wherein, anticaking agent MgCO₃ in step (d) is in the range of about 1.0 to 2.0g/kg of *Bael* fruit diluted pulp.
- 3. A process as claimed in claim 1, wherein, final concentration of *Bael* fruit diluted pulp and water in step (d) is about 10° brix.
- 4. A process as claimed in claim 1, wherein, pressure in the step (e) is in the range of 2500-5000psi.
- 5. A process as claimed in claim 1, wherein, inlet and outlet temperature in step (f) is in the range of about 140°C- 170°C and 90°C, respectively.
 - 6. A process as claimed in claim 1, wherein, the humidified conditions in step (g) is having a temperature of about 25°C and relative humidity of about 10%.
 - 7. A process as claimed in claim 1, wherein, addition of anticaking agent MgCO₃ retards the caking of the dried powder.
 - 8. A process as claimed in claim 1, wherein, addition of anticaking agent MgCO₃ provides a free flowing Bael fruit powder.
 - 9. A process as claimed in claim 1, wherein, the total carbohydrate content of the bael fruit powder is in the range of about 75 to 80%.

WO 2005/063055 PCT/IN2003/000433

10. A process as claimed in claim 9, wherein, the total carbohydrate content of the bael fruit powder is about $75.5 \pm 0.05\%$.

- 11. A process as claimed in claim 1, wherein, moisture content of the bael fruit powder is in the range of about 2 to 3%.
- 12. A process as claimed in claim 11, wherein, moisture content of the bael fruit powder is about $2.3\pm0.05\%$.
- 13. A process as claimed in claim 1, wherein, the colour of the bael fruit powder has L-value of in the range of about 40-45; a-value of about 0.50 to about 1.2; b-value is in the range of about 10-20.
- 14. A process as claimed in claim 13, wherein, the colour of bael fruit powder is has L-value of about 42.05; a-value of about 0.55; b-value of about 13.47 and
- 15. A process as claimed in claim 1, wherein, pH is in the range of about 5-6.
- 16. A process as claimed in claim 15, wherein pH is about 5.6.

5

10